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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/841,459	04/24/2001	Mark N. Robins	10011502-1	5364

7590 10/05/2005

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EXAMINER	
HANNETT, JAMES M	
ART UNIT	**PAPER NUMBER**
2612	

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/841,459	ROBINS ET AL.	
	Examiner	Art Unit	
	James M. Hannett	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 August 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *10-~~18~~ 12 and 21-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *10-~~18~~ 12 and 21-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 April 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/18/2005 has been entered.

Response to Arguments

Applicant's arguments with respect to claims 10-12 and 21-28 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1: Claims 10-12, 21, 22, 24-26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-056358 Maruyama in view of USPN 6,160,581 Higashihara et al.

2: In regards to Claim 10, Maruyama teaches in the abstract and on Paragraph [0005] and [0010] a method for generating a multiple exposure in a digital camera, the method comprising: displaying simultaneously a background digital image and a superimposed preview image; capturing a digital image of the preview image; and combining the background digital image and the digital image of the preview image to generate the multiple exposure. However, Maruyama

does not teach that the preview image is a view of a scene that is periodically updated n real time prior to image capture.

Higashihara et al teaches on Column 5, Lines 1-20 and Column 6, Lines 1-18 the use of a digital camera which allows a user to create a multiple exposure by displaying on the viewfinder a previously captured image and an image yet to be captured, so that a user can confirm beforehand the added image to ensure the image is properly exposed.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the preview image of Maruyama to be a preview image not yet captured as taught by Higashihara et al, so that the user can better create a multiple exposure image and assure the image is exposed properly.

3: As for Claim 11, Maruyama teaches in Paragraph [0009] that the multiple exposure is saved in memory.

4: In regards to Claim 12, Maruyama teaches in Paragraph [0008-0010] the background digital image comprises a composite of a plurality of digital images.

5: As for Claim 21, Maruyama teaches in Paragraph [0007-0010] a digital camera, comprising: an optical system (taking lens); an imaging device (15) for converting optical imaged received from the optical system to corresponding digital images; a memory for storing the digital images (26); and a controller configured for combining the digital images (22). Maruyama teaches in Paragraph [0041-0043] a display configured for displaying simultaneously a first digital image and a superimposed preview image. However, Maruyama does not teach that the preview image is a view of a scene that is periodically updated n real time prior to image capture.

Higashihara et al teaches on Column 5, Lines 1-20 and Column 6, Lines 1-18 the use of a digital camera which allows a user to create a multiple exposure by displaying on the viewfinder a previously captured image and an image yet to be captured, so that a user can confirm beforehand the added image to ensure the image is properly exposed.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the preview image of Maruyama to be a preview image not yet captured as taught by Higashihara et al, so that the user can better create a multiple exposure image and assure the image is exposed properly.

6: As for Claim 22, Maruyama teaches in Paragraph [0018 and 0065] that different numbers of exposures can be captured to perform a multiple exposure, therefore, it is inherent that the camera include an input device for specifying the number of digital images to be combined.

7: In regards to Claim 24, Maruyama teaches in Paragraph [0008-0010] the background digital image comprises a composite of a plurality of digital images.

8: As for Claim 25, Maruyama teaches in Paragraph [0007-0010] a digital camera, comprising: means for collecting optical images (taking lens); means for converting the optical images to corresponding digital images (15); means for storing the digital images (26); and means for combining the digital images (22). Maruyama teaches in Paragraph [0041-0043] a display configured for displaying simultaneously a first digital image and a superimposed preview image. However, Maruyama does not teach that the preview image is a view of a scene that is periodically updated n real time prior to image capture.

Higashihara et al teaches on Column 5, Lines 1-20 and Column 6, Lines 1-18 the use of a digital camera which allows a user to create a multiple exposure by displaying on the viewfinder

a previously captured image and an image yet to be captured, so that a user can confirm beforehand the added image to ensure the image is properly exposed.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the preview image of Maruyama to be a preview image not yet captured as taught by Higashihara et al, so that the user can better create a multiple exposure image and assure the image is exposed properly.

9: As for Claim 26, Maruyama teaches in Paragraph [0018 and 0065] that different numbers of exposures can be captured to perform a multiple exposure, therefore, it is inherent that the camera include an input device for specifying the number of digital images to be combined.

10: In regards to Claim 28, Maruyama teaches in Paragraph [0008-0010] the background digital image comprises a composite of a plurality of digital images.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11: Claims 23 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-056358 Maruyama in view of USPN 6,160,581 Higashihara et al in view of EP-1-067-778-A2 Hamada.

12: In regards to Claim 23, Maruyama in view of Higashihara et al teaches the claimed invention as discussed in Claim 21, However, Maruyama does not teach specifying a weighting factor for each of the digital images to be combined.

Hamada teaches that each of the images in the multiple exposure are weighted equally by the reciprocal of the number of images captured. Therefore, teaches specifying a weighting factor for each of the digital images to be combined. Hamada teaches that this method is advantageous because it prevents deterioration of the signal to noise ratio of the output image and prevents overflow of a memory capacity.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made weight each of the images in the multiple exposure by the reciprocal of the number of images captured in order to prevent deterioration of the signal to noise ratio of the output image and prevents overflow of a memory capacity.

13: In regards to Claim 27, Maruyama in view of Higashihara et al teaches the claimed invention as discussed in Claim 25, However, Maruyama does not teach specifying a weighting factor for each of the digital images to be combined.

Hamada teaches that each of the images in the multiple exposure are weighted equally by the reciprocal of the number of images captured. Therefore, teaches specifying a weighting factor for each of the digital images to be combined. Hamada teaches that this method is advantageous because it prevents deterioration of the signal to noise ratio of the output image and prevents overflow of a memory capacity.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made weight each of the images in the multiple exposure by the reciprocal of the number of images captured in order to prevent deterioration of the signal to noise ratio of the output image and prevents overflow of a memory capacity.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M. Hannett whose telephone number is 571-272-7309. The examiner can normally be reached on 8:00 am to 5:00 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James M. Hannett
Examiner
Art Unit 2612

JMH
September 22, 2005

NGOC YEN VU
PRIMARY EXAMINER